

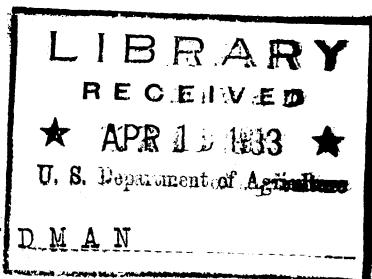
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THE EXTENSION ANIMAL HUSBANDMAN

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K. F. Warner, Animal Husbandman in Meat Extension

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WHY RECORDS AND REPORTS?

We recently visited the Division of Extension Studies and Teaching of the Federal Extension Service, where the annual reports of all cooperatively employed extension workers -- county extension agents, subject-matter specialists, State and district supervisors of county workers, and extension directors -- are summarized each year under the direction of Mr. M. C. Wilson. While there, several questions were asked Mr. Wilson about reports and records. These questions and Mr. Wilson's answers which follow will be of interest to livestock specialists. --Editors.

"Why should a livestock specialist make an annual report?

Answer - "The reasons for annual reports may be briefly set forth as follows:

"1. An annual report is an accounting to the taxpaying public of what the extension worker accomplished during the year.

"2. It is a record of the year's work put in shape for ready reference in later years by the worker himself or his successors.

"3. The annual report affords the extension worker opportunity to place his activities and accomplishments before his superior officers who have to form judgment as to workers deserving of promotion or best qualified to fill a more responsible position, should a vacancy occur.

"4. A further value of the annual report is the good that comes to the busy worker by pausing to take an inventory of accomplishments in light of plans as a basis for more effective planning for the new year.

"5. The accurate recording and reporting of one's work is a duty which every scientific or professional worker owes to the other members of the profession. Such a recognition of responsibility must permeate the rank and file of the extension personnel if extension teaching is to take its rightful place alongside other scientific professions.

"6. Annual reports are made necessary by the provision

in the Smith-Lever Law which states 'It shall be the duty of each of said colleges annually on or before the first day of January to make a full and detailed report of its operations in the direction of extension work as defined in this Act,.....' and 'That the Secretary of Agriculture shall make an annual report to Congress of the receipt, expenditure, and results of cooperative agricultural extension work in all the States!'

"Are records essential to good reports by livestock specialists?"

Answer - "Good reports by any extension worker are dependent upon two conditions. In the first place worth-while accomplishments must have taken place. And in the second place, adequate records must have been kept as the work was planned, developed, and results were obtained. In other words, the best-known system of records will not make up for lack of intelligent planning and execution and definite accomplishments. All too frequently, however, livestock and other specialists fail to make the necessary records and obtain the needed data on accomplishment to make possible the preparation of a worth-while annual report. Without supporting records, the annual report is neither impressive nor convincing."

"What information should the livestock specialist keep in his office?"

Answer - "A specialist should have in his office all information available regarding the status of the subject-matter industry or enterprise in which he is working, throughout the various counties of the State and in the State as a whole. Such background information is essential if the specialist is to be in position to advise regarding State-wide programs and plans and to assist individual county workers with their subject-matter problems."

"The specialist should, of course, have complete information regarding the phases of his project being undertaken in the various counties of the State and in cooperation with any State-wide interests related to his project."

"The specialist should assemble as complete information as possible regarding the progress made from time to time in forwarding the work outlined for the year together with any emergency work which may have arisen."

"Information as to definite accomplishments on each phase of the subject-matter project in the individual counties and throughout the State is of utmost importance not only for the annual report but to enable the specialist intelligently to revise his program and plans for the next year.

"A helpful device used in a number of States to keep specialists more closely informed regarding progress and accomplishments in the various counties consists of a duplicate copy on plain paper of the narrative statement in the monthly report of county extension agents. The copy on plain paper is clipped in the State office according to project headings and the clippings sent to the specialists concerned. In this way the specialists receive information from those counties not personally visited during the preceding month."

"Now, Mr. Wilson, won't you describe briefly just what files a livestock specialist should keep."

Answer - "Considerable time would be required to describe each file in detail but the essential files together with a word of description of each are as follows:

"1. A tickler or follow-up file. A perpetual card calendar file to enable the specialist to keep track of unfinished work, timely work, future promises, etc.

"2. County and project file: With provision for each State-wide phase of the project, and for each county in which work will be done. The counties can be subdivided according to phases of projects if it is desired; programs and plans, charts, form letters, demonstration outlines, and all similar teaching material; correspondence with county workers, reports of field trips to counties, progress statements from monthly reports of county workers, and all similar information on plans, execution and accomplishments in the various counties and under the various phases of the subject-matter line of work would be included in this file.

"3. General correspondence file.

"4. Miscellaneous subject-matter file, for reference material of all kinds relating to all phases of the subject-matter line of work.

"5. Photographic file, for negatives and prints illustrating work being done in the field."

"Where can a livestock specialist obtain more detailed information on how to set up a satisfactory record and filing system?"

Answer - "There is no publication available relating exclusively to record systems for specialists. U.S.D.A. Department Circular 107, System of Field and Office Records for County Extension Workers, describes all of the files I have just mentioned. In reading this circular, it will be necessary for the specialist to substitute the word 'State' for 'county;' also the word 'county' for 'community' wherever these words occur in order to make the statements applicable to a State extension office rather than to a county extension office."

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BROOD SOW PERFORMANCE

The following table shows the record of 1,467 brood sows and of their pigs at five field stations of the Animal Husbandry Division of the U.S. Bureau of Animal Industry, during the years, 1921-1930. The data are arranged on the basis of the age of the sow at farrowing time.

Age of sows (years)	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½
Number of sows bred	401	118	278	131	184	90	97	50	44	39	24	11
Number of sows farrowing	323	83	221	111	152	70	80	36	34	22	17	7
Per cent of sows farrow- ing	82	75	80	85	83	78	82	72	77	56	71	64
Pigs farrowed per sow (ave.)	8.0	8.3	9.4	8.3	9.8	9.5	9.3	9.6	9.4	8.0	7.8	7.7
Pig wt. at farrowing (ave.)	2.6	2.5	2.7	2.8	2.7	2.7	2.6	2.8	2.8	2.7	2.8	2.6
Per cent pigs farrowed dead	5.4	5.2	6.2	8.2	6.6	7.5	13.4	18.0	16.5	17.5	12.8	31.5
Pigs weaned per sow (ave.)	5.6	5.6	6.5	5.5	6.3	5.8	5.1	5.6	5.2	4.7	3.2	2.9
Per cent pigs weaned	70	67	69	66	64	60	54	59	55	59	41	37
Wt. of pigs at 70 days (lbs.)	34	31	39	37	39	35	39	36	33	36	40	39
Pork produced at weaning per sow (lbs.)	189	172	251	203	244	203	197	204	197	171	126	111

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MISSOURI BEEF PRODUCTION PROJECT

by

J.W. Burch, Extension Animal Husbandman

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The market beef production project in Missouri deals with two classes of farmers -

1. Those who buy the cattle they feed.
2. Those who raise their feeder calves.

The work with those that buy their feeders is handled under four general heads. First, winter meetings; second, cattle-feeding demonstrations or records; third, cattle feeders' tours; and fourth, baby-beef club work.

The winter meetings, county-wide and all-day in character, are usually combination hog and beef-cattle meetings. The past year's feeding demonstrations are reviewed by some of the outstanding cooperators. Recent experimental work, the current outlook, and feeding recommendations for the various classes of cattle for the coming year are given by the animal husbandry specialist. Problems such as the amount of protein, that can be used with 15 and 20 cent corn, and how much processing of feeds can be done under present low prices are typical of current situations that come up for consideration from year to year.

The cattle feeding demonstrations are established by the county agent with the help of the extension specialist the first year. An attempt is made to secure cooperators who are good cattle feeders, who will keep records on the initial weight, initial cost, the amount of feed consumed, cost of that feed, and allow a meeting to be held on their farms when the cattle are finished. It is usually possible to establish from three to seven demonstrations in a county that has any considerable amount of cattle feeding. This makes it possible to have a cattle feeders' tour at which time the various droves of cattle, on which records are being kept, are visited. Packer buyers appraise the cattle, the records are discussed, and conclusions drawn. The full financial statement of the feeding operations is given at these meetings although for the most part they are given no publicity through newspapers or circular letters.

A summary of the Clay County cattle feeders' tour is given

as an example of results. Six lots of cattle embracing 630 head were visited. The average feeding period was 296 days. The average initial weight for the 630 calves was 351 pounds and the average final weight was 887 pounds. The gains were very uniform, ranging from 1 3/4 pounds to 2 pounds per head daily for the entire period. The cattle were all full fed grain on blue grass pasture during the summer. Some of them were full fed from the time they went in the lot, others were given a half feed of grain on grass during the winter, others were taken off grain with the exception of cottonseed meal for a period during the winter while on the bluegrass. The average feed requirement per hundred pounds gain was 9.9 bushels of grain and 83 pounds of cottonseed meal. The heavy (535-pound) steer calves required 759 pounds of concentrates per hundred pounds gain while 333-pound calves of the same quality finished just as well when fed 50 days longer and required only 662 pounds of concentrates to make the same gain.

Good cattle feeders are used as leaders of baby-beef clubs. The records of the club members and the finished calves are used as demonstration material.

The work done with that group of cattle men who produce and feed their own calves consists of: First, winter meeting; second, bull sales; third, feeder-calf sales; fourth, beef herd demonstrations; fifth, contagious abortion control demonstrations; and sixth, 4-H cow and calf-club work.

In some counties the same winter meeting is used for this group of men that is used for the cattle feeders. In other counties meetings are held in the spring of the year, March and early April. Particular emphasis is placed on the importance of better bulls, the opportunities in feeding grain to suckling calves, and other important factors that are timely.

The beef-bull sales are filling a need. As with the sheep work, after many years of talking and writing about the importance of the right type of registered beef bulls there was still a gap to be bridged. The final, "push" necessary to get cow men to buy good registered beef bulls appeared to be lacking. In 1931 and again in 1932 five bull sales were held. All bulls offered were approved by the animal husbandry specialists. The local arrangements and advertising were done by a local committee of breeders and the county agent. Hereford, Shorthorn and Aberdeen-Angus bulls from 12 to 15 months of age, all registered and all of good

type, made up the offerings. These sales were held through the central part of the State so that those wanting bulls could drive to the sales. No female cattle were included. The advertising was written to indicate that the bulls which were to be sold were intended for use on grade cows to produce calves that would "top" the market. In the 1931 sales, 113 bulls averaged \$93.00 per head. In 1932, 115 similar bulls averaged \$65.00 per head. The sale expense per bull, including everything but trucking charges, averaged \$3.50 per head.

In the Ozark section of Missouri not enough corn is produced to fatten the calves that are raised. As a consequence there is a considerable territory in this area that produces feeder calves. In years past these cattle have been of rather poor quality. The feeder from the corn-producing sections of the State has had to deal with the trader, who bought from the small producers. As a consequence improvement of quality has been rather slow and our best feeders have continued to buy their calves from the range country. In order to improve the quality of the calves produced and make it possible for feeders to buy calves of uniform size and quality, two feeder-calf sales were held in the Ozark section. Calves were brought in and graded so that they were uniform as to quality, size, and sex. These lots were then put up and sold at auction. This work has given considerable emphasis to the use of good registered bulls in that section. The calves brought their value. The cost to the seller was 50¢ per head. The feeders were well pleased with the calves because they were purchased out of first hands and taken immediately home, without being subjected to excessive "fills" and exposure to disease.

Perhaps the most useful vehicle of extension work with beef cattle is the beef herd demonstration. Cooperators are selected who have good herds of grade cows and who are using good registered beef bulls. Some of these men have produced fall and early winter calves that have been fed out on the cows for the late summer and fall market. Others have produced spring calves that have nursed their dams, were started on feed shortly before weaning time, the heifers fed off for the spring market, and the steer calves fed on the grass and marketed as finished yearlings weighing 850 to 1,000 pounds. Records have been kept and meetings held on the farms before the calves or finished yearlings were marketed.

As an example of what may be expected from fall calves the following record of one cooperator is given.

J. H. Brayton - Cows and Calves
1932

Calves dropped.....	Nov. & Dec. (1931)
Feeding period, February 6 to September 15.....	220 days
Average initial weight, February 6.....	217 pounds
Average final weight, September 15 (at home).....	705 pounds
Average daily gain.....	2.22 pounds
(Corn.....	28.5 bushels
Feed per calf (Oats.....	1 bushel
(Cottonseed meal.....	80 pounds
Feed cost per calf.....	\$ 11.00
(With corn 35¢ per bushel, oats 15¢ per bushel, and cottonseed meal \$22.00 per ton)	
Feed cost per cow (\$10.63-winter* - \$7.00 - summer)\$	17.63
Interest, taxes and bull charge.....	4.75
Total	\$ 22.38
Cost per calf (at home)	\$ 33.38
Selling price per hundredweight in St. Louis,	
September 16.....	\$ 8.00
Selling price per head (marketing charges deducted)\$	51.00

These demonstrations are fundamental. They keep a true picture of actual costs before the cattle men and what can be done if the job is done right and give the county agent information that he can use to supplement experimental data.

Demonstrations on the control of contagious abortion are established in cooperation with the Veterinary Department.

4-H boys who have completed several years of steer feeding are encouraged to purchase good young cows and start in the cow and calf club work. In some sections of the State where the majority of the men have cow herds the 4-H calf club work is built on the cow and calf club plan.

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AMERICAN SOCIETY OF ANIMAL PRODUCTION

The executive committee of the American Society of Animal Production has announced the following membership of the committee on extension, of that organization, for 1933: L. A. Kauffman of Ohio; D. F. LaVoi of Michigan; B. F. Creech of West Virginia; C. W. McCampbell of Kansas; and C. D. Lowe of the U. S. Department of Agriculture.

The first three named are respectively, chairman, secretary, and vice-chairman of the extension section for the same period.

1932 ECONOMIES AND "EFFICIENCIES"

(Odd items from the annual reports of State workers)

Arkansas

John Stairs of Batesville who had been producing feeder cattle, because of an abundance of feed in the community, fed out a group of long yearling and 2-year-old steers on corn, cottonseed meal and oat hay. The steers returned 50 cents per bushel for corn that would not move otherwise at 25 cents per bushel. * * * * Fifteen hundred lambs marketed by farmers who followed recommended practices brought their owners an average of \$1.00 more per head than lambs from flocks where such practices were not followed.

--M.W. Muldrow

Colorado

The practices of controlled breeding and conditioning of bulls on one ranch with a breeding herd of approximately 500 cows resulted in a 20 per cent increase in the calf crop and a reduction in bull cost per calf from \$4.00 to 86 cents. Practically all the calves were dropped within a 45-day period. --A. C. Allen

Florida

A total of 316 purebred beef bulls, 26 high-grade bulls, 40 Brahman bulls and 122 purebred females were added to the herds in 38 counties of the State. --W. J. Sheely.

Illinois

One farmer operated 400 acres with 14 horses, another 320 acres with 11 horses and a third, 260 acres with 6 horses in 1932.

--E. T. Robbins

Indiana

Four hundred and forty farmers were reported as using big-team hitches, who had not previously used them. --P. T. Brown.

Kansas

Three hundred and ninety beef herd demonstrators with 29,450 cattle made an added average profit of \$7.48 per head over that obtained by cattlemen following ordinary methods. --J.J. Moxley.

Louisiana

Farmers in this State cured over 1,500,000 pounds of meat in 42 cold storage plants during 1932. Meat in storage at the end of the year came from about 15,000 individual farms. It is estimated that a total of 3,000,000 pounds of meat will be handled in this manner during the present winter. Commercial cold storage facilities are now located within 30 miles of every farmer in the State.

--W. T. Cobb

Missouri

Cost records on maintaining work horses on one farm showed an average feed cost per head of \$28.58 for the year. Each horse worked an average of 131 days which made a feed cost for each day worked of 21 cents. Corn was figured at 30 cents per bushel; oats, 15 cents; hay, \$15.00 per ton; and pasture, oat straw and corn fodder combined at \$9.00 per animal. * * * * * Two thousand three hundred and five big-team hitches were reported in use during the year.

Five thousand four hundred and sixty farmers were reported as having raised a total of 227,000 hogs under the swine sanitation system. As measured by a survey conducted in one county in which 200-pound hogs at 6 1/2 months of age was the goal, the farmers who followed the system had a 79 to 24 better chance in attaining the goal than those who used ordinary methods. --J. W. Burch.

New York

The 1932 enrollment in 4-H livestock clubs was as follows -- sheep clubs, 439; swine clubs, 437; and baby beef clubs, 47. This is the best record our State has made. --H. A. Willman.

North Dakota

During the year 1,037 farmers were assisted in purchasing or exchanging 327 purebred beef bulls, 276 purebred boars and 962 purebred rams. --Geo. J. Baker.

Pennsylvania

Approximately 30,000 head of work horses were shipped into the State during the year. There has also been an increase in horse breeding due to the availability of additional young stallions. More than 100 colts were entered in the colt club project. --C.A. Burge

South Carolina

In 76 hog-feeding demonstrations involving 1,261 hogs, an average of 6.05 bushels of corn and 30 pounds of supplement (largely fish meal and cottonseed meal, half and half) was required to produce 100 pounds gain. The feed cost per hundredweight of gain was \$2.88 figuring corn at 40 cents per bushel, fish meal at \$40 per ton and cottonseed meal at \$15 per ton. At a selling price of \$4.00 per hundredweight, the hogs returned 59 cents per bushel for the corn.

In 11 demonstrations involving 412 hogs in "hogging down" corn, the average yield of pork per acre of corn was 392 pounds, at an average cost of \$2.54 per hundredweight. These hogs returned an

average of 65 cents per bushel for corn with hog prices at 4 cents per pound.

Two hundred and eighty-nine purebred boars were placed in 12 counties and 237 farmers in 6 counties were assisted in obtaining purebred sows.

During the year, 33,714 hogs from 6 counties were shipped to market cooperatively and made a net return of \$207,437.39 to their owners.

A survey made in the summer showed that 18 ice and cold storage plants had stored, in individual containers for farmers, a total of 792,406 pounds of meat during the previous winter. Twenty plants are now available for this service.--Starkey, Hawkins and DuRant.

South Dakota

Twenty-four county sire exchange days were held in which 859 sires were exchanged or sold. --I. B. Johnson.

Tennessee

Forty-seven carloads (1,142 head) of grain-grass fed cattle were marketed during the year at prices ranging from 6 to 9 1/2 cents per pound, with an average of about 7 1/2 cents. Most of these cattle would have sold at 4 to 5 cents per pound as feeders had the grain supplement not been fed. The average weight was about 1,150 pounds per head and cost of gains ran from 3 1/2 to 5 cents per pound.

* * * * *

A veal calf marketing project through grading and cooperative shipping was conducted in seven counties. Three thousand five hundred and five calves were so handled at an estimated increased return to producers of \$7,010 over local selling. Furthermore, it removed from future competition with cattle of better grade, a large number of animals which should be sold as veal. --L.A. Richardson.

Three hundred and two hog feeding demonstrations conducted in 46 counties and involving 6,795 hogs were reported as bringing total profits of \$8,162 to the cooperators. --J. H. McLeod.

Texas

Eight hundred and seventy-three adults and 643 juniors conducted feeding demonstrations involving 71,919 head of beef cattle during the year. The reported labor and investment return from these demonstrations was \$196,611.65.

One hundred and forty-four farmers fed 9,438 head of cattle under a contract system of sharing results. --A. L. Smith.

In 1930 the State had considerably less than 1,000,000 hogs. In 1932 there were approximately one and one-half million. The practice of home butchering had spread to more than 75 per cent of the half million farms by 1932. Farm demonstration agents in 140 counties gave 2,535 demonstrations during the year in the farm killing, cutting and curing of pork and 17,512 farmers acted as demonstrators for their communities in curing 53,431 hog carcasses. Under the direction of the home demonstration agents more than three and one-third million pounds of beef were canned during the year. --Roy W. Snyder.

Utah

A total of 459 trench silos were constructed and filled during the fall of 1932. These silos were located in 16 different counties. --E. J. Maynard

Seven hundred purebred and 126 grade sheep were included in the 4-H sheep club work conducted in 14 counties of the State. Most of the wool produced by club members was converted into blankets by local custom mills at a cost of from \$1.75 to \$3.50 per blanket. --A. C. Esplin.

Virginia

Purebred sires placed during the year numbered 115 beef bulls, 248 rams, 63 boars or a total of 426 head. --Herring and Litton.

West Virginia

Twenty-four counties marketed livestock cooperatively in 1932 as compared with 19 in 1931. Four thousand six hundred individual shipments, consisting of 2,827 cattle, 44,679 lambs, 790 calves and 370 hogs were made by 2,429 farmers. These shipments had a gross sale value of \$316,593.87. Two thousand one hundred and thirty-eight farmers marketed their 1932 wool clips cooperatively.

Three hundred and six scrub bulls were eliminated and 117 purebred beef bulls were placed during the year. --B. F. Creech.

Wisconsin

A total of 177 draft colts were exhibited at 12 regularly organized colt club shows during the year.

Two hundred and twenty boys and girls representing 21 different counties showed 220 baby beeves, 264 barrows and 125 lambs at the annual junior live stock exposition held at Madison. -- Arlie Mucks.

Wyoming

A flock of 925 head of sheep sheared fleeces with an average weight of 10.7 pounds, as compared with 7.2 pounds five years ago. This increase was brought about by ewe culling and the use of heavy-shearing rams. --J. R. Neale.

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WHERE FARMERS GET INFORMATION

A recent survey reported by extension engineer Johnson of Illinois indicates the various sources from which farmers obtained information on farm engineering and the percentage of farmers using each agency. Summarized, the results were as follows -

	<u>Per cent</u>
Lumber dealers	53.2
County agents.....	11.7
Commercial firms.....	6.1
Agricultural colleges....	4.1
Other sources.....	24.9

The fact that the farmers interviewed could recall that only 15.8 per cent of their information came from the county agent and the college, suggests the importance of getting the right kind of information into the hands of the intermediate agencies from which farmers obtain advice.

Since in the instance cited commercial agencies were credited as the source of 59.3 per cent of the information obtained, it emphasizes the need of subject-matter workers utilizing every opportunity in keeping such agencies fully informed regarding practices that are being advocated, not only for uniformity of recommendations but also to insure that supplies of materials involved may be made available.

In the last analysis this serves to point out again that extension workers can not afford to overlook the fact that much of our teaching has to be done through secondary agencies before the ultimate consumer is reached, an important consideration in planning and conducting most any type of extension project. --C. D. Lowe.

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VIRGINIA NATIVE LAMB PROJECT

by

Kenneth E. Litton, Virginia Extension Service.

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The native lamb improvement project in Virginia includes all phases of sheep husbandry that have to do with the improvement of market lambs. The extension service was very active in carrying on both the production and marketing phases of this project in 1932, and has the same program already under way for 1933. The county agents in the various lamb-producing counties were on the job from start to finish and rendered invaluable service to the producers. The program followed in the 25 counties, which carried lamb-improvement work as a major project, contains the following phases:

1. Use of good purebred rams
2. Treating flocks regularly for stomach worms
3. Greater use of legume hay for winter feeding
4. Docking and castrating all market lambs
5. Creep feeding early lambs
6. Grading lambs for market
7. Cooperative selling and shipping both lambs and wool.

The Virginia Purebred Sheep Breeders' Association promoted 13 ram sales, which resulted in 494 purebred rams being placed in the various counties reporting. It is conservatively estimated by lamb producers that good rams will increase the value of lambs sired by them at least 50 cents per head. If a ram sires 30 lambs during the first year his value would be \$15 for that period or in other words to use a grade ram costs the producer \$15 each year on the basis of 30 lambs sired.

The counties reported 108,487 ewes treated for stomach worms in 1932 as against 71,747 for 1931. From early spring until late fall we send out regular monthly notices reminding the grower that it is time to treat again. Other timely information is included in these notices from time to time.

One hundred and twenty-three thousand, three hundred and ninety-nine lambs were docked and castrated as compared with 62,899 during the 1931 season. Buck lambs were sorted out and sold

separately at \$1 discount after June 13. This practice alone increased the value of Virginia market lambs approximately \$61,700.

Creep feeding lambs is proving profitable and increased about 50 per cent during 1932. Lambs going on the market after June are usually made to grade Good or better from grass alone. However, it is the opinion of producers that grain feeding pays if the grass is not good enough to make them grade Good or above.

Lamb grading was started in 1931 with a very few shipments being graded. In 1932, 70 decks containing 7,363 lambs from 14 counties were good enough to be classed as "red circles," that is, lambs grading Good and Choice. In almost every instance these lambs sold for 25 cents to 50 cents premium on the Jersey City market. The value of grading is best illustrated by the following report from the Southwest Virginia Shipping Association, which shipped approximately 14,000 lambs cooperatively last season. The report shows that 3,574 lambs grading Good and Choice brought an average price of \$6.89 per 100 pounds from July to October, while 3,570 ungraded lambs marketed during the same period brought an average of \$5.25. This was a difference of \$1.64 per head in favor of the "red circle" lambs. Growers like the method of farm grading, as it permits them to get paid in accordance with the quality they produce and to observe differences in quality.

The practice of shipping cooperatively is gaining in popularity due to the fact that in most instances the shipping associations are able to get more money for the producers. The various shipping associations shipped approximately 50,000 lambs last season. Their volume of business is expected to increase because of the service they render, in addition to the actual money they save producers.

Virginia had 22 counties enrolled in the national native lamb improvement project. Augusta county ranked first in all counties entered, scoring 74 points, while Virginia ranked third as a State.

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James M. Stewart, assistant farm adviser in Fulton County, Illinois, was assigned to conduct meat cutting demonstrations in a number of counties of the state for a six weeks' period during the winter.

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PORK CUTTING AND CURING
IN A "LIVE-AT-HOME" PROGRAM

by

Hector McDonald, Extension Animal Husbandman,
Pullman, Washington.

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Helping our smaller farmers in western Washington to produce food on their farms which would provide an ample, well-balanced diet for their families has been of particular concern to the Washington Extension Service during the past two years. During last December and January, Miss White, our assistant director in charge of home economics extension, and the writer, conducted a well-attended series of meetings and demonstrations on the cutting, curing and canning of pork. As many as four meetings were held in some counties. In western Washington most of the farmers have not previously put up meat on the farm. The type of farming in the area is largely dairying, poultry farming, and berry raising. Very little milk has been separated on the farm, most of it being sold to distributing plants in the form of whole milk. Because of the general set-up very few hogs are raised in this area. The population in western Washington is largely urban and until recently when a large number of logging companies and lumber companies have closed down, lumbering was the main industry. Now hundreds of families who have very little knowledge of farming and know little of the practices of their fathers and mothers, who for a generation before them put up a farm meat supply, are living on farms in western Washington.

First of all the extension hog-production program in this area is to encourage farmers who are favorably situated to handle brood sows, to raise pigs and sell them to their neighbors as weanling pigs to be raised for the family pork supply. A number of "pig for pork" 4-H clubs have also been started in this area.

Our pork cutting and curing demonstrations have been conducted in community halls and grange halls. Most of our demonstrations have lasted all day. Early in the morning, before the demonstration proper started, one-half of a hog carcass was cut up for Miss White who started the lard and other products cooking. From 10:30 to noon a pork-cutting demonstration and a discussion and exhibition of curing materials were conducted. At noon the women present served dinner including scrapple which had been prepared in the kitchen while the pork cutting had been going on in another part of the hall.

With one-half of the carcass a style of cutting to emphasize the curing of the maximum proportion of the carcass was demonstrated. Every detail, from trimming the head and preparing lean backs, to stripping fat from the rind was included. A second half carcass was cut to show the method of preparing the loin for chops and canning. Pork shoulders were boned for sausage and methods of preparing a number of roll roasts and other fresh pork cuts were shown as a part of the demonstrations.

After dinner Miss White discussed the subjects of canning pork, making head cheese, scrapple, etc. The use of the pressure cooker was fully described. A can of the fresh warm pork chops was opened and passed among the audience for their observation and sampling.

Variations from the above program were made in several counties. One meeting was held at a large packing plant and the pork-cutting demonstration was done by one of the employees of the plant. Although such a visit is interesting to farmers, our experience causes us to favor meetings held in the community centers.

Our administrators were particularly interested in the combined program for the farm men and women as there are few demonstrations that bring out both the men and women and combine their interest.

There are already numerous requests from our counties for meat demonstrations to be carried on next fall. There is considerable interest in farm curing of meats other than pork. More and more meat coolers containing individual boxes or bins for rent to farmers are being installed in creameries and other plants where cold storage is available.

Personnel Items

Ohio

L. A. Kauffman, sheep husbandry specialist resigned on December 31, 1932, to accept the position of secretary and field manager of the Ohio Sheep and Wool Growers' Association, with headquarters at Columbus.

Maryland

Kenneth C. Clark, animal husbandry specialist, was on official leave from January 1 to March 1, during which period he was getting some first-hand experience in the commercial sausage industry.

CALIFORNIA LIVESTOCK PROGRAM

By Louis H. Rochford,
Extension Specialist in Animal Husbandry.

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Until recently no correlated State-wide extension program has been conducted with California beef cattle and sheep producers. During recent years, however, the farm advisors in several counties have carried on some valuable miscellaneous work that applied to local cattle and sheep problems. In this work they were greatly assisted by the experiment station workers of the College of Agriculture, by field men of the State Department of Agriculture, and by representatives of the livestock associations. The field work consisted of some tests, and numerous method demonstrations, tours, meetings, and personal service to stockmen on such problems as range improvement, disease control, improved breeding, feeding, enterprise studies, and marketing. In addition, many of the counties had definite beef cattle and sheep extension programs in 4-H club work. Due to the pressure of other projects, however, and the limited time for field assistance from outside sources, the continuity of the beef cattle and sheep programs in most counties was not maintained.

On April 1, 1932, the writer began work as extension specialist in animal husbandry for the University of California, to develop a State-wide beef cattle and sheep extension program in cooperation with other extension workers, stockmen, and other individuals and agencies interested in the livestock business. The first five months were spent in studying the livestock industry and the general agriculture of the State. Every livestock producing area of the State was visited. Conferences with farm advisors, stockmen, and others were held in 52 of the 58 counties. Observations were made on the details of prevailing livestock practices and problems.

Following the general survey, the economic background of the cattle and sheep industries was summarized. This emphasized the fact that the beef cattle and sheep industries are of major importance as a source of agricultural revenue in 32 of the 58 counties.

After considering the economic background, definite plans for the program were developed. At a conference held September 29 at Berkeley, this program was placed before leaders of the livestock industry for their approval. Representatives of the California Cattlemen's Association, the California Wool Growers' Association, The California Farm Bureau Federation, the South San Francisco Union

Stockyards Company, the Animal Husbandry Division of the College of Agriculture, and the Agricultural Extension Service attended the conference. They discussed the program, made recommendations for the first year's work, and assured hearty cooperation in carrying it out successfully.

The 1933 program calls for the beginning of 31 definite tests and demonstrations to be conducted on typical ranches located in key positions in the State. They will be considered district tests and demonstrations. They are to include testing the economy and practicability of improved methods of supplemental feeding of range cattle, controlled breeding, finishing cattle, creep feeding calves, range ewe culling, supplemental feeding of range ewes, finishing lambs, grading cattle and lambs for market, range improvement, meadow and pasture improvement.

Some expected difficulties have arisen but also some definite progress can be reported at this time. The chief difficulty is to get a satisfactory check of one practice against another without interfering with the regular ranch program. To date, however, satisfactory locations have been found for 15 of the proposed tests and demonstrations.

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Indiana Calf Clubs

Definite plans have been completed and a carload of steer calves has been ordered for the 1932-33 baby-beef calf club in Sullivan County. This club will involve eight members feeding five calves each and fourteen members feeding two calves each. The calves are being purchased on credit provided by the Indianapolis Producers Commission Association and the Sullivan Shipping Association. The title to the calves remains in the supervisory committee of the Sullivan County Baby Beef Calf Club and all expenses involved in the contract price, insurance, transportation, etc., will be deducted from the sale receipts and the balance remitted to the feeding members. The primary purpose of this project is to provide an opportunity for experienced calf club members to enlarge their feeding operations with the hope that they will become car-load feeders.

-----Purdue Extension News Notes

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Mississippi Livestock Progress

Three hundred seventy-one purebred boars were placed during the year, also 244 purebred beef bulls, 47 mutton rams and 4 jacks. Further improvement was accomplished through the placing of 132 beef cows, 9 ewes and 884 sows and gilts with farmers as foundation animals.

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"DRIVE-IN" RECEIPTS OF LIVESTOCK, 1932

The following table showing the non-rail receipts of livestock in 1932 at 17 of the principal markets, also the percentage such receipts were of the total receipts, indicates the extent to which the motor truck has become a factor in the transportation of this commodity.

<u>Market</u>	<u>No. head</u>	<u>Percentage of Total</u>
Omaha	3,296,894	47.65
E. St. Louis	2,526,250	57.39
St. Paul	2,321,436	43.34
Sioux City	2,294,942	69.01
Indianapolis	2,161,240	89.11
Chicago	1,765,666	13.61
St. Joseph	1,634,509	55.32
Kansas City	1,571,530	31.14
Cincinnati	1,096,472	52.64
Fort Worth	783,067	37.18
Oklahoma City	631,049	73.53
Wichita	611,359	59.84
Milwaukee	580,621	43.35
Denver	502,989	12.86
Sioux Falls	502,377	96.55
Louisville	424,932	70.47
Portland	188,983	32.74

On the basis of total receipts at the above markets for the year, the percentage of each species of animals listed as "drive-ins" was, for hogs, 54.63 per cent; for calves, 52.90 per cent; for cattle, 34.68 per cent; and for sheep, 21.65 per cent. For all species combined, the percentage arriving by non-rail transportation was 40.57 per cent.

During the seven months' period, June to December inclusive, data on methods of transportation employed were obtained for the first time at the 61 markets reporting (including the 17 listed above) and showed that of the total of 16,547,633 head received during that period, more than 35 per cent were classified as "drive-ins."

More detailed information on this general subject is available in mimeographed form from the Livestock, Meats and Wool Division of the U. S. Bureau of Agricultural Economics, Washington, D. C.

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NATIVE LAMB IMPROVEMENT, 1932

Michigan, under the standard plan of measuring results, made the best record among the various States competing in the native lamb improvement project sponsored by certain commercial agencies represented by J. D. Harper of the National Live Stock Publishing Association, Chicago, in 1932. Missouri in second place, Virginia in third and West Virginia in fourth were rather closely grouped in the standing. The ratings were based on the practices of docking and castration and the use of registered rams.

The four States reported a total of 23,781 farmers who docked and castrated and 13,467 registered rams in use by the cooperators during the year.

In Michigan, 8,201 sheepmen from 20 counties cooperated in the project. Eighty-five per cent of them docked and castrated their market lambs and 64 per cent used registered rams. Five hundred and ninety-five farms used registered rams which did not do so in 1931.

In Missouri, lamb producers numbering 7,229, living in 16 different counties, cooperated. Eighty-six per cent of them docked and castrated their lambs and 40 per cent used registered rams. Four hundred and sixty owners used registered rams who did not in 1931.

In Virginia, 18 counties and a total of 4,126 sheepmen made complete reports in the project. Sixty-eight per cent of the owners docked and castrated their lambs and 44 per cent used registered rams. Such rams were in use on 464 farms which did not use registered rams in 1931.

In West Virginia, 11,013 sheepmen in 22 counties participated. Seventy per cent of them docked and castrated their lambs and 32 per cent used registered rams. Five hundred and thirty-three owners used registered rams in 1933 who did not in 1931.

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Recent Publications

"Common Parasites of Horses" by Thorp and Graham - Illinois Experiment Station Circular No. 397.

"The Management of Manure in Barn and Field" by J. A. Slipper - Ohio Extension Service Bulletin No. 131.

"Killing and Cutting Beef on the Farm" by Roy W. Snyder - Texas Extension Service Publication No. B-79.

"Pork on the Farm" by Fenn, Johnson and Dolve - South Dakota Extension Service Circular No. 315.

"Cutting, Curing and Canning Pork and Beef" by Ewing and Carl - Missouri Extension Service Circular No. 300.

"Cutting Pork and Lamb for Home Use" by P. A. Anderson - Minnesota Extension Service Folder No. 38.

"Cutting the Beef Carcass" by P. A. Anderson - Minnesota Extension Service Folder No. 39.

"Home Curing of Pork" by P. A. Anderson - Minnesota Extension Service Folder No. 40.

"Home Canning of Meats" by J. B. Francioni, jr. - Louisiana Extension Service Circular No. 118.

"4-H Sheep Club Handbook" by H. A. Willman - Cornell (N.Y.) Extension Service Bulletin No. 45.

"Lamb-Fattening Experiments in Utah" by Maynard, Esplin and Boswell - Utah Experiment Station Bulletin No. 238.

"Effect of Feed, Water and Shelter upon Fleeces of Utah Ewes" by A. C. Esplin - Utah Experiment Station Bulletin No. 240.

"Fattening Lambs on Corn, Milo, Hegari, Wheat and Oats, with Cottonseed Cake and Alfalfa" by Mackay and Jones - Texas Experiment Station Bulletin No. 465.

"Fattening Lambs in Sugar Beet Districts" by W. L. Quayle - Wyoming Experiment Station Bulletin No. 191.

"Preparing Wool for Market" by W. M. Buck - U. S. Department of Agriculture Leaflet No. 92.

"Pregnancy Disease of Sheep" by Roderick and Harshfield - North Dakota Experiment Station Technical Bulletin No. 261.

"Creep-Feeding Range Calves" by Jones and Jones - Texas Experiment Station Bulletin No. 470.

"Factors Influencing the Time of Buying Feeder Steers and of Selling Them as Choice Summer-Fed Steers" by H. J. Henney - Kansas Experiment Station Bulletin No. 258.

"Hog Lot Equipment for Texas Farms" by Regembrecht and Bentley - Texas Extension Service Publication No. B-81.

"Type in Market Swine and Its Influence on Quality of Pork" by J. E. Nordby - Idaho Experiment Station Bulletin No. 190.

"Swine Husbandry in Idaho" by Nordby and Gildow - Idaho Extension Service Bulletin No. 89.

"Shrinkage of Hogs from Farm to Market by Truck and by Rail" by R. C. Ashby - Illinois Experiment Station Bulletin No. 388.

"Feeding Cattle and Sheep on the Range and in the Feed Lot" by Gilbert and Miller - California Extension Service Circular No. 70.

"Feeding Wheat to Fattening Hogs" by B. E. Carmichael - Maryland Experiment Station Bulletin No. 336.

"Livestock Trucking in Missouri" by Thomsen and Pankhanel - Missouri Experiment Station Bulletin No. 317.

"Factors Affecting Shrinkage in Shipping Hogs by Rail" by J. R. Wiley - Purdue (Indiana) Experiment Station Bulletin No. 358.

"Producing Farm Livestock" by Edmunds, Carroll, Kamalade, Nevers and Snapp - a text-book published by John Wiley & Sons, Inc., New York.

"Truck and Rail Transportation of Nebraska Livestock to the Omaha Market" by Wendt and Hedges - Nebraska Experiment Station Bulletin No. 275.

"The Annual Trail to the Feed Lot, or 1933 Feeding Practices" - Texas and Oklahoma Cottonseed Crushers' Assn., Santa Fe Bldg., Dallas, Texas.

"Studies on the Nutritive Value of Kelp Meal for Animal Feeding" by H. P. Morris - U. S. Department of Commerce Technological Report No. 5.

"Livestock on Farms" by W. L. Austin - 15th Census of the United States - U. S. Department of Commerce.

"Distribution of Livestock" by C. D. Bohannon - 15th Census of the United States, U. S. Department of Commerce.